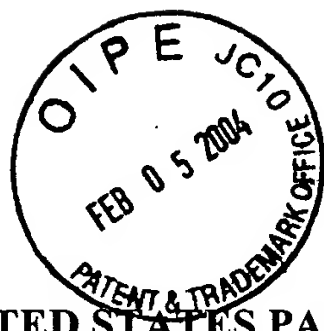


S/N 09/945507



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Leonard Forbes et al.	Examiner:	Son Dinh
Serial No.:	09/945,507	Group Art Unit:	2824
Filed:	August 30, 2001	Docket:	1303.014US1
Title:	FLASH MEMORY WITH LOW TUNNEL BARRIER INTERPOLY INSULATORS		

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

Serial No :09/945507

Filing Date: August 30, 2001

Title: FLASH MEMORY WITH LOW TUNNEL BARRIER INTERPOLY INSULATORS

Page 2

Dkt: 1303.014US1

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

LEONARD FORBES ET AL.

By their Representatives,


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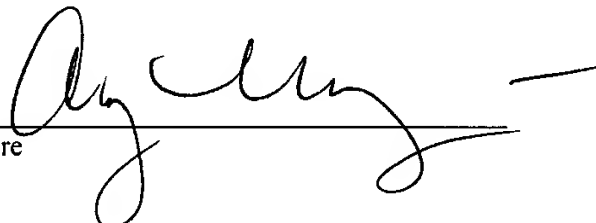
(612) 349-9587

Date 2 Feb '04

By 
Timothy B Clise
Reg. No. 40,957

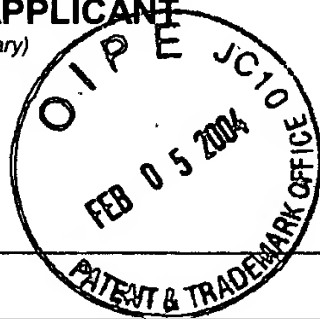
CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 2nd day of February, 2004.

Name Amy Moriarty

Signature 

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Complete if Known	
	Applicati n Number	09/945,507
	Filing Date	August 30, 2001
	First Named Inventor	Forbes, Leonard
	Group Art Unit	2824
	Examiner Name	Dinh, Son
Sheet 1 of 3	Attorney Docket No: 1303.014US1	



US PATENT DOCUMENTS						
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-2001/0013621	08/16/2001	Nakazato, K	257	314	12/08/2000
	US-2001/0055838	12/27/2001	Walker, A J., et al.	438	129	08/13/2001
	US-2002/0028541	03/07/2002	Lee, T H., et al.	438	149	08/13/2001
	US-2003/0042527	03/06/2003	Forbes, Leonard , et al.	257	315	08/30/2001
	US-2003/0042532	03/06/2003	Forbes, Leonard	257	316	08/30/2001
	US-2003/0043622	03/06/2003	Forbes, Leondard	365	185.05	08/30/2001
	US-2003/0043630	03/06/2003	Forbes, Leonard , et al.	365	185.26	08/30/2001
	US-2003/0043632	03/06/2003	Forbes, Leonard	365	185.28	08/30/2001
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EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

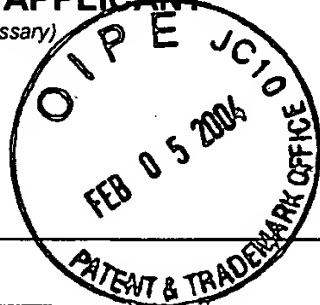
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Application Number	09/945,507
Filing Date	August 30, 2001
First Named Inventor	Forbes, Leonard
Group Art Unit	2824
Examiner Name	Dinh, Son

Sheet 2 of 3

Attorney Docket No: 1303.014US1

	US-5,617,351	04/01/1997	Bertin, Claude L., et al.	365	185.05	06/05/1995
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²
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OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		AARIK, JAAN , et al., "Anomalous effect of temperature on atomic layer deposition of titanium oxide", <u>Journal of Crystal Growth</u> , (2000),pp. 531-537	
		AFANAS, V. , et al., "Electron energy barriers between (100)Si and ultrathin stacks of SiO ₂ , Al ₂ O ₃ , and ZrO ₂ insulators", <u>Applied Physics Letters</u> , 78(20), (2001),pp. 3073-3075	
		BHATTACHARYYA, A. , "Physical & Electrical Characteristics of LPCVD Silicon Rich Nitride", <u>ECS Technical Digest, J. Electrochem. Soc.</u> , 131(11), 691 RDP, New Orleans,(1984),469C	
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		INUMIYA, S , et al., "Conformable formation of high quality ultra-thin amorphous Ta ₂ O ₅ gate dielectrics utilizing water assisted deposition (WAD) for sub 50 nm damascene metal gate MOSFETs", <u>IEDM Technical Digest. International Electron Devices Meeting</u> , (December 10-13, 2000),649-652	
		MANCHANDA, L. , "Si-doped aluminates for high temperature metal-gate CMOS: Zr-Al-Si-O, a novel gate dielectric for low power applications", <u>IEDM Technical Digest. International Electron Devices Meeting</u> , (December 10-13, 2000),23-26	
		YAMAGUCHI, TAKESHI , "Band Diagram and Carrier Conduction Mechanism in ZrO ₂ /Zr-silicate/Si MIS Structure Fabricated by Pulsed-laser-ablation	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

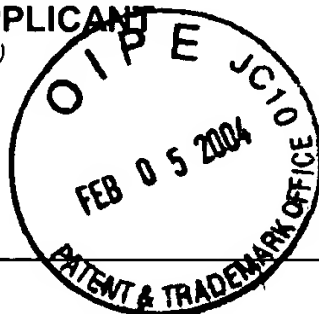
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Complete if Known

Application Number	09/945,507
Filing Date	August 30, 2001
First Named Inventor	Forbes, Leonard
Group Art Unit	2824
Examiner Name	Dinh, Son

Sheet 3 of 3

Attorney Docket No: 1303.014US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	*	Deposition", <u>Electron Devices Meeting, 2000. IEDM Technical Digest.</u> <u>International, (2000), 19-22</u>	

— Missing item marked with *

EXAMINER**DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

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S/N 09/945507

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Leonard Forbes et al.

Examiner: Son Dinh

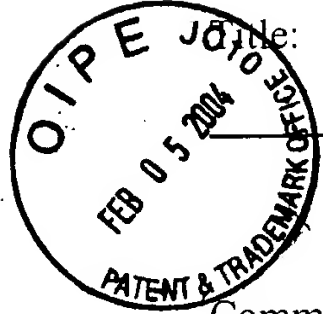
Serial No.: 09/945507

Group Art Unit: 2824

Filed: August 30, 2001

Docket: 1303.014US1

Title: FLASH MEMORY WITH LOW TUNNEL BARRIER INTERPOLY
INSULATORS



COMMUNICATION CONCERNING RELATED APPLICATION(S)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related application(s) in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date</u>	<u>Attorney Docket</u>	<u>Title</u>
09/945395	August 30, 2001	1303.019US1	DRAM CELLS WITH REPRESSED FLOATING GATE MEMORY, LOW TUNNEL BARRIER INTERPOLY INSULATORS
09/943134	August 30, 2001	1303.020US1	PROGRAMMABLE ARRAY LOGIC OR MEMORY DEVICES WITH ASYMMETRICAL TUNNEL BARRIERS
09/945512	August 30, 2001	1303.027US1	IN SERVICE PROGRAMMABLE LOGIC ARRAYS WITH LOW TUNNEL BARRIER INTERPOLY INSULATORS
09/945554	August 30, 2001	1303.028US1	SRAM CELLS WITH REPRESSED FLOATING GATE MEMORY, LOW TUNNEL BARRIER INTERPOLY INSULATORS
09/945500	August 30, 2001	1303.029US1	PROGRAMMABLE MEMORY ADDRESS AND DECODE CIRCUITS WITH LOW TUNNEL BARRIER INTERPOLY INSULATORS

COMMUNICATION CONCERNING RELATED APPLICATIONS

Serial Number: 09/945507

Filing Date: August 30, 2001

Title: FLASH MEMORY WITH LOW TUNNEL BARRIER INTERPOLY INSULATORS

Page 2

Dkt: 1303.014US1

10/075484	February 12, 2002	1303.043US1	ASYMMETRIC BAND-GAP ENGINEERED NONVOLATILE MEMORY DEVICE
10/081818	February 20, 2002	1303.045US1	ATOMIC LAYER DEPOSITION OF METAL OXIDE AND/OR LOW ASYMMETRICAL TUNNEL BARRIER INTERPOLY INSULATORS
10/177096	June 21, 2002	1303.063US1	GRADED COMPOSITION METAL OXIDE TUNNEL BARRIER INTERPOLY INSULATORS

Respectfully submitted,

LEONARD FORBES ET AL.

By Applicants' Representatives,

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(612) 349-9587

Date

2 Feb '04

By


Timothy B. Clise
Reg. No. 40,957

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Name

Amy Moriarty

Signature

